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ABSTRACT

The Whorfian Hypothesis, which states that the structure of one's language influences the understanding of reality, is examined in relation to the Chinese language and culture and to the English language and American culture. Examples supporting the Whorfian Hypothesis are offered in language relating to personal relationships. Research on the Hypothesis is reviewed briefly, and various interpretations are noted. It is concluded that while the Hypothesis in its stronger forms has been discredited, Whorf's work has opened linguistic theory to greater consideration of the relationship between language and thought. Contains 19 references. (MSE)

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The Whorfian Hypothesis

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Preface

The purpose of this paper is to analyze the Whorfian hypothesis, which states that the structure of one's language influences the understanding of reality. References to the Chinese language are given in an attempt to support this hypothesis. Likewise, studies that attempt to clarify and test the Whorfian hypothesis are summarized. This paper concludes that although the Whorfian hypothesis is attractive, there are some problems with it.

The Whorfian Hypothesis

Culture is an integral part of the interaction between language and thought. Cultural patterns, customs, and ways of life are expressed in language; culture-specific world views are reflected in language. In my second language, Chinese, there are many examples that support the contention that language seems to shape the way the speaker of a language view the world.

The differences between American and Chinese attitudes towards "relationships and position"關係 (gwan-syi) are elements of a larger cultural difference. Characteristic of the Chinese people is a social system of mutual dependence, which includes dependent relationships between family members, friends and business partners. In the Chinese culture, these relationships are valued and murtured. Within this system each individual finds his appropriate place with relationship (gwan-syi) to others. Several Chinese terms suggest this relationship. The term "da jya"大家 (big family) is a synonym for the English term "everyone." While the English emphasizes the individualism, the Chinese term indicates an explicit familial relationship to others. That is, we are all part of a big family.

The interaction of Chinese students within a college are clearly estabished along lines of relationships (gwan-syi). Upper class students, both male and female, are given the respectful familial title of "sya-jung"學長 (study older brother) and

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"sya-jai"學姊 (study older sister), respectively.

The Chinese view of the importance of relationship and position (gwan-syi) can be futher seen in their use of other vocabulary words. One's position, not only in society but also within the family, is very important. Within the family structure there is a different term for each member according to their relationship and position to other members. For example, in English we have two terms for the relationship between offsprings of any given couple: brother or sister. However, in Chinese there are many terms for this relationship: ga-ga哥哥 (older brother), dee-dee弟弟 (younger brother), jai-jai姊姊 (older sister), and may-may妹妹 (younger sister). Likewise, we have only one word for cousin, whereas in Chinese there are at least 16 different terms depending on which side of the family a person comes from and his parents as well as his own position.

The terms for some conventional titles also clearly confirm the significance of "gwan-syi" in Chinese vocabulary. The title for "mister"先生 (sin-sung) literally means "first born." It is highly respectful for someone to be born before another, thus adding to the "gwan-syi" of the title. "Soa-jay" 小姐 (little older sister) is the term of respect for a unmarried woman. These terms for conventional titles elaborate the importance of "gwan-syi" in the Chinese language.

In contrast, American society is individual-centered, "everyone" versus "big family." That is to say, America values

individual action and individual achievement. Each person strives for independence from others, and seeks to fulfill his/her own desires. However, in seeking this freedom to do what he/she desires, the individual often finds himself/herself isolated from others in society.

These differences in Chinese and American terms seem to reflect a basic difference between the two cultures. The Chinese tendency is to develop a social system based on mutual dependence while the American tendency is to stress individuality and independence from others. It might be argued that the Chinese developed a social system based on mutual dependence because of their language. In other word, the Chinese language imposes on them a particular way to think and view the world.

One of the champions of the position that language affects thought was Benjamin Whorf. Whorf was by profession a fire prevention enginneer who studied linguistics as a hobby. He claimed that each language imposes on its speakers a particular "world view" The following is Whorf's (1956) summary of his theory:

> The background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his syntheses

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> of his mental stock in trade. Formulation of ideas is not an independent process, strictly rational in the old sense, but is part of a particular grammar and differs, from slightly to greatly, as between different grammars. We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds - and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way -an agreement that holds through our speech community and is codified in the patterns of our language. The agreement is, of course, and implicit and unstated one, but its terms are absolutely obligatory; we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees (pp. 212-214).

Actually, part of the credit for this theory must go to Edward Sapir, a linguist and teacher who had an enoumous influence on the ideas of his student Whorf, and whose ideas actually foreshadowed those of Whorf. As early as 1939, Sapir (1941) was stating:

> Human beings do not live in the objective world alone, but are very much at the mercy of the particular language which has become the medium of expression for their society. The fact of the matter is that the "real world" is to a large extent unconsciously built up on the language habits of the group. We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation.(p. 93)

These ideas are so close to those expressed by Whorf that the hypothesis is often called the Sapir-Whorf hypothesis.

Languages have different ways of dividing the color spectrum, for example, illustrating differing world views on what color is and how to identify color. Gleason (1961) noted that the Shona of Rhodesia and the Bassa of Liberia have fewer color categories than speakers of European languages and they break up the spectrum at different points. Of course, the Shona or Bassa are able to perceive and describe other colors, in the same way that an English speaker might describe a "dark bluish green," but the labels which the language provides tend to shape the person's overall cognitive organization of color and to cause varying degrees of color discrimination.

Words are not the only linguistic category affecting thought. The way a sentence is structured will affect nuances of meaning. Elizabeth Loftus (1976) discovered that subtle

differences in the structure of questions can affect the answer a person gives. For example, upon viewing a film of an automobile accident subjects were asked questions like "Did you see the broken headlight?" in some cases, and in other cases "Did you see a broken headlight?" Questions using the tended to produce more false recognition of events. That is, the presence of the definite article led subjects to believe that there was a broken headlight, whether they saw it or not. Similar results were found for questions like "Did you see some people watching the accident?" versus "Did you see any people watchging the accident?" Similary, questions containing a presupposition such as "How fast was the car going when it hit the stop sign?" (presupposing both the existence of a stop sign and that the car hit a stop sign, whether the subject actually saw it or not) brought about comparable responses.

Likewise, anyone who has studied a foreign language is aware of the impossibility of exact translation from one language to another. It is often very difficult, even for perfectly fluent bilinguals, to take abstract thoughts expressed in one language and to reformulate them in another language. (Zepp 1982)

Whorf himself based many of his ideas on his studies of the Hopi Indians in the American far west. He noted that space and time are not expressed in the Hopi language; rather, the Hopi grammar and vocabulary express ideas using the contrast of

particles with field of vibrations. The Western notion of time as a homogeneous and uniformly moving continuum cannot be easily expressed (Brown 1987).

> Time, for example, is not measured or wasted in Hopi. Time is expressed in terms of events, sequences, and development. Plant a seed and it will grow; the span of time for growth is not important. It is the development of events -planting, germination, growth, blossoming, bearing fruit -that are important.
>
> Hopi does not use verbs in the same way that English does. In English we might say "he is running" but in Hopi we would have to choose from a number of much more precise verbal ideas, depending upon the knowledge of the speaker and the validity of the statement. A different form of the verb expresses: "I know that he is running at this moment even though I cannot see him," "I remember that I saw him running and I presume he is still running," or "I am told that he is running." (p.139).

The Whorfian theory is two-fold: "not only is thought conditioned by language; once the mental structures are fixed in one language, they cannot accommodate the structure necessary for thought in another language." (Zepp 1982, p.131). This view is very pessimistic, for it implies that no real meaningful communication can exist between people of different mother tongues. It also means that attempting to teach Western ideas to

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speakers of non-Western languages is a waste of time:

> They cannot hope to understand Western ideas because their language has shaped their minds in ways that preclude the accommodation of Western ideas.(Zepp 1982, p. 131).

Has the Whorf hypothesis stood up to the test of experimental scrutinizing? Early research, Berlin (1969) appeared to support the hypothesis. These studies examined color coding by speakers of various languages. For example, some languages such as Navajo do not distinguish between blue and green, while others, such as Fulfulde, can describe shades of red much more precisely than English can. But the simple description of colors is not what the Whorf hypothesis is all about; of course, different languages express things differently. Eskimo tribes commonly have as many as seven different words for snow to distinguish among different types of snow (falling snow, snow on the ground, fluffy snow, wet snow, and so forth), while certain African cultures in the equatorial forests of Zaire have no word at all for snow. Whorf's description of the Eskimo language's many terms for snow simply states that the languages are different and in no way proves that Eskimos perceive snow any differently from speakers of English, who do not have the rich vocabulary for describing snow.

Most of the research during the 1970's failed to confirm the Whorfian hypothesis. For example, Macnamare (1970) noted that

many children and adults were able to master complex ideas in a second or third language. Macnamara concluded that structures in the first language were not absolute obstracles to learning second language concepts. This led to him to create different versions of the Whorfian hypothesis. The strong version was the original one, which stated that the first language acted like blinkers to thought in other languages. The weaker versions stated that although concepts could be learned in a second language, thought still tends to proceed along lines laid down by the first language.

In order to test the weak hypothesis, it is necessary to compare students who are learning in their second language with those who are learning in their first language. All the difficulties of keeping other variables constant remain, and it is therefore extremely difficult to verify or to refute the weak hypothesis experimentally.

By the 1980s, the Whorfian hypothesis had been so weakened by the lack of experimental support that most linguists and educators no longer took it very seriously. Statements were being made along the following lines: (Rosch, 1977)

> At present, the Whorfian hypothesis not only does not appear to be empirically true in any major respect, but it no longer even seems profoundly and ineffably true. (p. 519)

Even more damningly, Macnamara (1970) argues:

> We must visualize the human language user as a far more dynamic agent in his approach to speech than either Whorf or bilingual theory builders seem to imagine. Moreover, it seems likely that linguistic processes are only a small part of the cognitive functioning which is associated with either the production or the interpretation of speech. I do not believe that there is any evidence to justify claims of Whorfian relativism. (p. 36)

At present, almost no one gives much credence to the strong version of the Whorf hypothesis. The weak version is not one hypothesis, but a continuum of views on the degree of influence which language has on thought.

Perhaps the area in which language may have the greatest effect is in its grammar rather than its vocabulary. For some grammars stress certain elements, thereby calling attention to them. For example, many languages, such as Japanese, have an array of pronouns and forms of address by which the relative social standing of all parties involved is always made clear and explicit. It might be argued that the Japanese maintain a high degree of awareness of social ranks because of their language. Similarly, Chinese which describe kinship relations precisely, may lead to a heightened awareness of kinship relations.

But the cause-and-effect relationships of these examples are

extremely difficult to document. Perhaps the Japanese awareness of social standing caused and now perpetuates a language which reflects that awareness, rather than vice versa. Perhaps Chinese, in their awareness of kinship relationships, invented languages which reflect those relationships. It is very much a chicken-and-egg situation, where both language and social custom tend to reinforce each other. These are examples of the notion that language, culture, and thought are very much interrelated, and that it makes little sense to ask which comes first, the language or the thought. The fact is, they perpetuate and complement each other. Whorf (op. cit.) himself was aware of such difficulties:

> Which was first: the language patterns or the cultural norms? In the main they have grown up together, constantly influencing each other. But in this partnership the nature of the language is the factor that limits the free plasticity and rigidifies channels of development in the more autocratic way. This is so because a language is a system, not just an assemblage or norms.(p. 156)

Ronald Wardhaugh (1976) expresses the antithesis of the Whorfian hypothesis:

> The most valid conclusion to all such studies is that it appears possible to talk about anything in any language provided the speaker is willing to use some degree of

circumlocution. Some concepts are more 'codable,' that is, easier to express, in some languages than in others. The speaker, of course, will not be aware of the circumlocution in the absence of familiarity with another language that uses a more succinct means of expression. Every natural language provides both a language for talking about every other language, that is, a metalanguage, and an entirely adequate apparatus for making any kinds of observations that need to be made about the world. If such is the case, every natural language must be an extremely rich system which readily allows its speakers to overcome any predispositions that exist. (p. 74)

The Whorfian hypothesis has unfortunately been misinterpreted by a number of linguists and other scholars. In one case, Guiora (1981, p177) criticized Whorf's claim that the influence of language on behavior was "undifferentiated, all pervasive, permanent and absolute": Guiora called these claims "extravagant." It would appear that it was Guiora's interpretation that was extravagant, for he put ideas into Whorf's writings, eloquently demonstrated that the Whorfian hypothesis was not nearly as monolithic or causal as some would interpret it to be. "The 'extravagant claims' made in the name of linguistic relativity were not made by Whorf, and attributing to him simplistic views of linguistic determinism serves only to obscure the usefulness of his insights." (Brown, 1987, p. 138)

Although the Whorfian hypothesis is an attractive one, there are some problems with it. First, many people in the world are bilingual or multilingual from a very early age. Would it be fair to say that these people have different thought compartments in their brains, one associated with a different language. Second, the fact that a particular category does not exist in a language does not mean that native speakers of that language cannot understand the category: the grammatical system marking the source of information in Hopi can be explained in English even though it does not exist in English grammar. Third, if thought were determined by language, it would be difficult to image how people from different cultural backgrounds could communicate at all. Finally, the lexicons and grammars of all languages share many universal patterns, even though at first glance the languages of the world differ so strikingly from one another. "Whorf overstimated the variability in the structure of languages." (Finegan, 1989 p. 22).

While the Whorf hypothesis has been largely discredited in its stronger forms, lingustics owes a tremendous debt to Benjamin Whorf. For it was he who opened up the train of thought which allowed linguists to escape from the old Aristotelian dichotomy between thought and language. By stating that language precedes thought, Whorf challenged the conventional wisdom of the day, that thought is independent from and precedes language. Since that questioning of tradition, the study of language has never

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been the same.

Linguistics today has not resolved the question entirely. There is a realization that thought and language cannot be separated, but that they are not identical, either.

Whorf's writings make very worthwhile reading, for they are clear and to the point. It is impossible to read Whorf without developing a deeper appreciation for the cultural and linguistic differences between English and Hopi. The Hopi really seem to think in a very different way from Westerners, and difference between languages is one plausible explanation for those differences in thought.

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